

ABSTRACT

A method of determining the Volume Scattering Function of Ocean Waters in the backward direction using a Satellite Ocean Color Sensor the said method made to exploit the geometry of the sun-ocean-satellite detector to function as a backscatter system
5 comprising of the sun [1] as a source of radiation, the ocean as the sampling volume [2], and the satellite ocean color sensor [3] as the detector of the backscattered flux from the ocean emanating from separate ocean pixels arranged on a scan line across the track of the satellite payload and arriving at corresponding pixels on the CCD array detector of the satellite sensor [3]; the output signals from each electronic pixel of the detector is
10 shown to be related to the Volume Scattering Function at a fixed scattering angles (ψ) which bears a direct relation to the cosines of the solar incident angle (θ_s) and the angle (θ_p) of the upwelled flux at the ocean surface, the Remotely Sensed Reflectance (Rrs), and the diffuse attenuation coefficient (Kd) thereby resulting in a new product of the Volume Scattering Function at fixed backscattering angles.